



Parks, Recreation and Cultural Services/Tree Board

June 26, 2014



**Parks, Recreation and Cultural Services Board
2014 Meeting Schedule**

Date:	Time	Location:
July 24	6:00 p.m.	Annual Tour of Parks and Facilities
August 28	7:00 p.m.	Shoreline City Hall, Room 303
September 25	7:00 p.m.	Shoreline City Hall, Room 303
October 23	7:00 p.m.	Shoreline City Hall, Room 303
December 4	7:00 p.m.	Shoreline City Hall Room 303



AGENDA
(Amended 6.24.2014)
PARKS, RECREATION & CULTURAL SERVICES/TREE BOARD
REGULAR MEETING

Thursday, June 26, 2014
7:00 p.m.

Room 303 – Shoreline City Hall
17500 Midvale Ave North

Estimated Time

- | | | |
|---|--------|------|
| 1. CALL TO ORDER/ATTENDANCE | | 7:00 |
| 2. APPROVAL OF AGENDA | Action | 7:02 |
| 3. ELECTION OF CHAIR & VICE-CHAIR | Action | 7:05 |
| 4. APPROVAL OF MINUTES | Action | 7:15 |
| 5. PUBLIC COMMENT | | 7:17 |
|
<i>During General Public Comment, members of the public may sign in to address the Board on agenda items or any other topic for three minutes or less, depending on the number of people wishing to speak.
PRCS/Tree Board meetings are audio recorded and available to the public.</i> | | |
| 6. STAFF REPORT | | 7:20 |
| 7. HIDDEN LAKE MANAGEMENT FEASIBILITY STUDY | | 7:40 |
| 8. HILLWOOD MINIGRANT PROPOSAL | Action | 8:00 |
| 9. PUBLIC ART APPROVALS | Action | 8:20 |
| <ul style="list-style-type: none">• Acceptance of donated art• Sunset School Park Entryway Artwork Concepts | | |
| 10. JULY PARKS AND FACILITIES TOUR | | 8:30 |
| 11. COMMENTS FROM THE BOARD | | 8:40 |
| 12. ADJOURN | | 9:00 |

The PRCS/Tree Board meeting is wheelchair accessible. Any person requiring a disability accommodation should contact the City Clerk's Office at 801-2230 in advance for more information. For TTY telephone service call 546-0457.

DATES TO REMEMBER

"Walk-Shop" for 145th Street Station Subarea

Walking Tour

- **Date:** 06/27/2014 2:00 PM
- **Location:** Meet at North Jackson Park and Ride on 5th Ave

Shoreline Arts Festival

- **Date:** 06/28&29/2014 10:00 AM - 6:00 PM
- **Location:** Shoreline Center

Shoreline Farmers Market

- **Date:** Every Saturday 10:00 AM - 3:00 PM
- **Location:** Shoreline City Hall - upper garage

Hidden Lake Feasibility Study Public Meeting

- **Date:** 07/01/2014 6:30 PM - 7:30 PM
- **Location:** Shoreview Park

Noon Concerts

- **Date:** Every Tuesday beginning July 8 from noon – 1:00. Check the schedule for location.

Karaoke in the Park

- **Date:** Every Tuesday from 5:30 PM - 8:00 PM at Cromwell Park

Concerts in the Park

- **Date:** Every Wednesday beginning July 9 from 7:00 PM - 8:30 PM. Check the schedule for location.

"Walk-Shop" for 185th Street Station Subarea

Walking Tour

- **Date:** 07/11/2014 2:00 PM
- **Location:** Meet in front of Spartan Gym

Swingin' Summer Eve

- **Date:** 07/23/2014 5:30 PM - 8:30 PM
- **Location:** Cromwell Park

Visit the PRCS Website at shorelinewa.gov/parks and check out the new Celebrate Shoreline! Facebook page.



Meeting Minutes for the Parks, Recreation
and Cultural Services Board / Tree Board
Regular Meeting

May 22, 2014
7:00 p.m.

Shoreline City Hall
Room 302

1. **Call to Order/Attendance**

The meeting was called to order by Chair Beth at 7: 00p.m.

Park Board Members Present: Al Wagar, John Hoey, Christine Southwick, Garry Lingerfelt, Katie Beth, Vadim Dolgov, Betsy Robertson

Excused Absence: Jesse Syeuro

City Staff Present: Dick Deal, Director; Maureen Colaizzi, Parks Projects Coordinator; Kirk Peterson, Parks Maintenance Superintendent; James McCrackin, Pool Manager; Lynn Gabrieli, Administrative Assistant III

2. **Approval of Agenda:** Chair Beth called for a motion to approve the agenda as written. Mr. Deal requested that the Light Rail Update by Steve Szafran, currently Agenda Item #11, be addressed when Mr. Szafran is free from his concurrent meeting. The agenda was moved for approval by Ms. Southwick as amended and seconded by Mr. Lingerfelt. The motion carried.

3. **Approval of Minutes:** Chair Beth called for a motion to approve the April 2014 minutes as written. So moved by Mr. Wagar. Seconded by Ms. Southwick. The motion carried.

4. **Public Comment: No Comment**

5. **Comments from the Board**

Ms. Robertson recommended moving "Comments from the Board" to the end of the agenda and calling it "Board Discussion." This would allow more time for the Board to process information from the meeting, prompting further discussion. The Board discussed the pros and cons of this idea. **Chair Beth called for a motion to approve moving the Comments from the Board agenda item to the end of the agenda. So moved by Ms. Robertson. Seconded by Ms. Southwick. The motion carried.**

Mr. Hoey suggested a teambuilding/social opportunity for Board members to build relationships and familiarize themselves with PRCS projects and opportunities in an environment that is less structured than the monthly meeting. Opportunities and limitations of the Chapter 3: Open Public Meetings Act were discussed.

6. **Staff Reports**

Kirk Peterson, Parks Maintenance Superintendent

- The Department of Fish and Wildlife planted Echo Lake with fish. The Board entertained a recommendation to publicly announce this event when it happens and discussed ways to educate the public about this annual event.
- Engineers are conducting seismic testing in the area in and around Ridgecrest Park related to the development of the Sound Transit Light Rail project.

- The City co-sponsored the Strawberry Festival with the Richmond Beach Neighborhood Association in April. We provided the Showmobile stage for performances.
- This is the time of year when nine athletic fields are aerated, overseeded and fertilized.
- EarthCorps reconstructed the trails at Twin Ponds Park.

James McCrackin, Pool Supervisor

- Teen and Tween events included the Annual Break Dance Battle and Pysanky egg decorating.
- The teens adopted a portion of Fremont Avenue from 165th to 175th.
- The Pool hosts about 280 school age kids for an end of year pool party.
- The Pool offers swim lessons, lifeguard classes and lifeguard training.
- The Gators Swim League has been running at capacity since 2010.
- Six benefited staff supervise up to 45 seasonal staff.
- The Million Step Challenge has logged over 2,000,000 steps so far this month. The 3 Million Stair Challenge begins June 1.
- The annual Dance Recital takes place on May 30 at the new Shorewood High School Theater.

Maureen Colaizzi, Park Development Coordinator

- Construction is underway at Sunset School Park. Pathways are paved and grading is in process. A new backstop has been installed and the contractor will begin the field work next week.
- Bids opened for Echo Lake Park on Monday, May 20. Sundstrum is the low bid under consideration for this project. This will go to Council for financial approval on June 16.

Mr. Deal referred to distributed materials related to sidewalk improvements at 8th NW and 195th St. Replacement trees will be planted in other locations as restitution for more than 20 trees that need to be removed in the ROW as a result of the Aurora project. Information comes to the PRCS Board as information only.

7. **Veterans Memorial**

Mr. Deal introduced Dwight Stevens, Chair of the Shoreline Veterans Association, who described the proposed "Veterans Recognition Site" as illustrated in the agenda packet. Mr. Stevens described the Veterans Association's relationship to the American Legion and their desire to create a site to recognize veterans for their service and raise awareness. They intend to raise funds through the selling of brick pavers.

The Board discussed design, construction, fund raising and placement. **Chair Beth called for a motion to approve the next phase of development of the design illustrated as "Scheme A," understanding that the details are yet to be determined. So moved by Mr. Wagar and seconded by Ms. Southwick. The motion carried five to one. One member expressed preference for "Scheme B."**

8. **Hidden Lake Update**

Hidden Lake is located in Shoreview/Boeing Creek Park which was originally created in 1913 by William Boeing. The City's stormwater utility is charged with maintaining the lake. The Council has requested a feasibility study to determine maintenance alternatives. Public Works Staff will attend the June PRCS Board meeting and the Board will tour the site in July. The Council will review the project in August.

9. **Northcrest Park Improvement Schedule**

This park will be on the July tour. Officer Parry of the Shoreline Police Department will provide crime statistics for this park and surrounding areas to inform the discussion of design. The project will include opportunities for public comment and Board involvement.

10. Review of 2014 Work Plan

As the Board debriefed the April meeting with the City Council the recommendation was made to find ways to facilitate more of a conversation between the Board and the Council. Mr. Deal reviewed the status of each of the work plan elements, providing explanation of delayed projects and updates on current or anticipated projects.

The Board inquired about the insertion of Northcrest Park and Hidden Lake into the 2014 Work Plan.

11. Light Rail Update

Steve Szafran, Associate City Planner, informed the Board about the 185th Light Rail Station planning procedure explaining the differences and similarities between the 145th Street and 185th Street demographics and process. The Board engaged staff with questions intended to clarify the plan and understand the impact on neighborhoods and parks. They discussed transportation and zoning implications as well as the implication for parks and open spaces. The next community meeting for the 185th St. Station will be June 3 from 6:00 – 8:00 p.m. in Council Chambers.

12. Adjournment

Hearing no further business Chair Beth called for the motion to adjourn. So moved by Ms. Southwick and seconded by Mr. Hoey. The May meeting of the PRCS Board adjourned at 9:05 p.m.

Signature of Chair
Katie Beth

Date

Signature of Minute Writer
Lynn Gabrieli

Date



Memorandum

DATE: June 19, 2014
TO: Parks, Recreation and Cultural Services Board
FROM: Eric Gilmore, Sr. Engineering Technician and
RE: Hidden Lake Feasibility Study
ATTACHED: Attachment A – Alternative Status Quo
Attachment B – Alternative Cease Dredging
Attachment C – Alternative Remove or Lower Dam
Attachment E – Alternative Basinwide Flow Control
Attachment E – Open House Overview

Hidden Lake is a man-made lake situated partially on private property and on the western portion of Shoreview Park. The Lake's maintenance access is on private property with easements granted to King County and subsequently the City. Hidden Lake is a dammed section of Boeing Creek upstream of Innis Arden Way constructed as an open water feature to provide aquatic habitat, and contains a forebay to trap sediment and channel material as it moves into the Lake.

In order to keep the Lake as an open-water feature, the City removes material on an annual or biannual basis. Material deposition has occurred at a higher rate than anticipated, requiring a higher volume and frequency of removal. Maintenance of Hidden Lake is the City of Shoreline Surface Water Utility's largest single operation and maintenance budget item.

Following direction from Council in 2013 and Boeing Creek Basin Plan (BC-Hab 1), the Hidden Lake Feasibility Study was funded for 2014. The Surface Water Utility has been conducting the Hidden Lake Management Feasibility Study in conjunction with AltaTerra Consulting to find alternatives to better manage Boeing Creek at Hidden Lake.

STUDY STATUS

The Surface Water Utility has completed the habitat, geomorphological, and financial review of the Hidden Lake Management Feasibility Study. The Utility is preparing its draft report and has developed a list of alternatives for this facility, which this memo will discuss.

The goals of the Feasibility Study were to:

- Identify alternatives that will reduce the net maintenance cost for managing Hidden Lake;
- Identify capital projects or strategies that can be incorporated in the City's next 6-year Capital Improvement Program (CIP); and
- Maintain or improving water quality in Boeing Creek

PRELIMINARY FINDINGS

The sediment that is eroded and transported to Hidden Lake is from natural sources, including a majority of material sources from hillslope failures along the south fork of Boeing Creek between confluence of Boeing Creek's North Fork and M1 dam (an existing stormwater facility upstream of Hidden Lake), and smaller amount (10-20% of material volume) from in-channel sources such as the stream bed and streambanks. Hillslope sources will continue to supply sediment to Hidden Lake regardless of potential sediment reduction measures. Slopes have been oversteepened through past channel erosion, and high flows wash away the channel material (to Hidden Lake) that would otherwise have buttressed the steep slopes. There is not a cost-effective way to stabilize the currently unstable hillslopes at this time.

To modify flow conditions that continue to undermine hillslopes, upstream flow control is necessary. Preliminary flow calculations suggest 5-10 stormwater detention facilities (over 50 acre-feet of storage) would be needed to achieve flow control in line with current standards for the nearly 700 acres that drain to Hidden Lake. The upstream flow control would likely reduce the frequency of erosive flows, but would not eliminate the hillslope, channel and streambed erosion.

ALTERNATIVES

The project team first developed a list thirteen potential management alternatives for Hidden Lake. A fatal flaw analysis was performed on this list and has been further refined to the nine alternatives (shown below). Four of the alternatives now eliminated due to their cost of implementation or potentially not meeting project goals.

Alternative	Status	Why?
Status Quo (keep dredging)	Retained	No-action alternative
Cease Dredging	Retained	No-cost alternative
Remove Dam	Retained	Closest to "restoration"

Lower Outlet	Retained	Intermediate solution
Upstream Flow Control	Retained	Basin-wide benefits, possible very high cost depending on amount of flow control
Convert Lake to Stormwater Facility similar to M1 or Boeing Creek Park	Eliminated	Low benefit
Stabilize Channel	Eliminated	High cost, could negatively affect park users
Install Grade Control	Eliminated	Low benefit, high cost
High Flow Bypass	Eliminated	High benefit, very high cost

Alternative 1: Status Quo

The City can expect to continue annual or bi-annual dredging, depending on weather patterns that result in high stream flows and upstream landslide activity. Channel material currently stored in the channel (100s – 1,000s of cubic yards behind log weirs and left behind from the Boeing Creek Park Dam failure), alone, would likely trigger dredging, if temporary structures (log and debris jams) or constructed weirs were to break. The average annual cost of \$54,500 will continue or increase, diverting resources away from other projects or operations.

Hidden Lake will continue to provide recreational benefit to Park users and aesthetic amenity to lakeside residents. The Lake does not appear to offer Utility benefit as described by municipal code or as described by the 2011 Surface Water Master Plan.

Alternative 2: Cease Dredging

Hidden Lake would fill with sediment, and eventually have a much different look and feel. Depending on weather patterns that result in high stream flows or more landslide activity upstream, this could be a few years up to a few decades.

The open water lake would slowly convert to a forested wetland which offers the greatest ecological 'lift' compared to the other alternatives. A transition plan would need to be in place as the lake fills requiring the Utility to maintain the outfall and dam structure.

Alternative 3: Remove Dam or Lower Outlet

Removing the Hidden Lake dam may not result in a long-term reduction in maintenance costs given that the Innis Arden Road culverts would still present a “choke” point for downstream sediment and debris movement. This would only present a different maintenance need. These alternatives offer the closest to restoration of the original stream channel and forested wetland condition that existed prior to the construction of the Hidden Lake Project in 1996.

The timing of lowering the outlet relative to the rate or extent of sediment accumulation would be an important consideration.

Alternative 4: Upstream Flow Control

There are three potential portions of upstream flow control:

1. Modify already constructed upstream flow control facilities to moderate flows may be possible and done so at a reasonable cost.
2. Preliminary calculations suggest 5-10 M1-sized dams or equivalent detention facilities (over 50 acre-feet of storage) would be needed to achieve flow control in line with current standards for the nearly 700 acres that drain to Hidden Lake. The cost of construction would far outweigh maintenance cost savings.
3. New development and redevelopment of private property will require meeting current stormwater standards. Current modeling shows reduced peak flow and duration may reduce hillslope undercutting but will not eliminate material deposition at Hidden Lake..

PUBLIC COMMENT

On May 6th, the first of two public meetings was held at Shoreview Park. Most of those who attended were lakeside residents but it also included Parks users and other interested Shoreline residents. Some of the comments and concerns included:

- The cost of dredging the lake.
- Questions about who was paying for it and whether it was the City or Utility's responsibility.
- Concerns regarding trespassing on private property from Shoreview Park.
- Concerns about trail conditions and it restricting access to the lake.
- Concerns about what would happen if dredging stopped and how that would impact habitat.
- In general, people seemed to have more opinions about the surrounding areas (growth and development) and in-stream issues rather than Hidden Lake specifically.

LEGAL CONSIDERATIONS

The Surface Water Utility Department has consulted with the City Attorney's office in regards to this project. The primary question for the City Attorney was the limitations, if any, of easements entered into by King County when it initially restored the Hidden Lake facility in the 1990s.

The recorded easements pertain to five (5) properties (originally Daly, Kellett, Lankford, Jans, and Lewis) all of whom granted to King County (subsequently Shoreline) certain privileges. The primary intent of these documents was for access over and across private property for not only completing the Hidden Lake Restoration Project (temporary construction easement) but also a permanent non-exclusive easements to allow for the future maintenance, dredging, and cleaning of sediment along with maintain and inspecting the lakebed and shoreline. A Native Growth Protection Easement (NGPE), an area in which only native vegetation could be planted and there was to be no use of fertilizers, pesticides, or other chemicals, was also granted to King County with these documents. Also, some property owners (Daley, Lankford, Jans) also granted a permanent non-exclusive drainage easement which allowed for an underground bypass pipeline. Some property owners also granted a permanent non-exclusive drainage easement which allowed for an underground bypass pipeline.

The easements gave rights to King County (subsequently Shoreline) to enter onto these private properties for construction and maintenance of the Hidden Lake project and/or to provide for drainage. Shoreline, as the owner of the rights, generally has the ability to unilaterally terminate the easement by executing a document that releases its easements rights and recording that document with the King County Recorder. If released, Shoreline would need to not only release its rights of access and the NGPE but, also it would need to release the drainage easement.

However, there is a single provision in the easements that establishes a commitment on the part of King County. This provision states that once construction of the Project has been completed, that the lake will be maintained consistent with the Plans and the permit requirements. There is no dispute that Shoreline assumed this responsibility from King County.

Based on public comments received to date, the City Attorney's office is aware that impacted property owners may assert that this provision mandates the continuation of Hidden Lake as an open water environment in perpetuity. Such an interpretation would mean that Shoreline could not release the easements because of its obligation to maintain the lake. However, another provision in the easements allows for the Termination of Easements and Restrictions in certain situations, with only one still relevant alternative—“Cease Dredging.”

The City Attorney's office is not limiting the Department's consideration of alternatives based on the easements' language. All viable alternatives are available for consideration by the City of Shoreline and for presentation to the public.

NEXT STEPS

The project team will take feedback and comments from this meeting and update the alternatives as needed. A second public meeting will be held at Shoreview Park July 1st at 6:30PM. We will present the alternatives at the meeting and receive public feedback.

At the July meeting, the Parks Board will visit Hidden Lake and discuss any other questions at that time. The Utility will ask for the Parks Board recommendation after the July meeting. On August 18, 2014 the project team will present the potential alternatives the City Council for their selection.

A handwritten signature in black ink, appearing to read "Eric Gilmore". The signature is fluid and cursive, with the first name "Eric" and last name "Gilmore" clearly distinguishable.

Eric Gilmore
Surface Water and Environmental Services
Sr. Engineering Technician

Alternatives Considered

ALTERNATIVE	STATUS	WHY?
Status Quo (keep dredging)	Retained	No-action alternative
Cease Dredging	Retained	No-cost alternative
Remove Dam	Retained	Closest to “restoration”
Lower Outlet	Retained	Intermediate solution
Upstream Flow Control	Retained	Basin-wide benefits, possible very high cost
Convert Lake to Stormwater Facility similar to M1 or Boeing Creek Park	Eliminated	Low benefit
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Install Grade Control	Eliminated	Low benefit, high cost
High Flow Bypass	Eliminated	High benefit, very high cost



Alternatives – At Lake

Status Quo (Continue dredging)



– Pros:

- Lake remains
- Maintains open water habitat for fish and refuge when stream conditions are unfavorable

– Cons:

- No ecological “lift” compared to other alternatives
- Continued cost to remove channel material



Alternatives – At Lake

Cease Dredging

– Pros:

- Reduced costs for Utility
- Highest ecological “lift” compared to other alternatives
- Could provide mitigation credits for other projects

– Cons:

- Loss of lake
- Abandonment of ‘Project’
- Outlet and dam will still need to be maintained



Alternatives – At Lake

Remove or Lower Dam

– Pros:

- Moderate ecological “lift” compared to other alternatives
- Could provide mitigation credits for other projects
- Maintenance costs may be reduced
- Complete dam removal is the closest option to “restoration” of natural system

– Cons:

- Continued maintenance at culverts within right-of-way
- Eliminates possibility of re-establishing lake in the future



Alternatives – Basinwide

Flow Control

– Pros:

- Minimizes the problem (sources and transport)
- Can be done independently of the lake
- Could be done in conjunction with redevelopment

– Cons:

- Will still require maintenance
- Potential significant cost
- Space for facilities
- Large retention volume necessary to have an impact



Open House – May 6 at Shoreview Park

Residents from around Hidden Lake attended with a handful of interested parks users.

General comments:

- The cost of dredging the lake.
- Questions about who was paying for it and whether it was the City or Utility's responsibility.
- Concerns regarding trespassing on private property from Shoreview Park.
- Concerns about trail conditions and it restricting access to the lake.
- Concerns about what would happen if dredging stopped and how that would impact habitat.
- In general, people seemed to have more opinions about the surrounding areas (growth and development) and in-stream issues rather than Hidden Lake specifically.



Boeing Creek Reach #12 in Hillwood Park Wetland Installation Plan

19001 3rd Ave W
Shoreline, WA 98177

County Parcel # 0126039257

Prepared for the City of Shoreline



FIG 1 **HILLWOOD CREEK LOOKING NORTH**

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PROJECT NAME: Hillwood Creek Wetland Restoration

SITE LOCATION: 19001 3rd Ave NW, Shoreline, WA 98177

PROPERTY LOCATION AND CURRENT USE

“Hillwood Park is located in the northwest portion of the City in the Hillwood Neighborhood. Einstein Middle School borders the park. A portion of the middle school’s track is located on the park property. The School District maintains use of this area through a Joint Use Agreement with the City. The park consists primarily of recreational facilities. It contains a small wooded area and trail on the central eastern edge of the park as well. The area surrounding the park is completely developed and consists of primarily single-family homes.”¹

FIG 2 VICINITY MAP

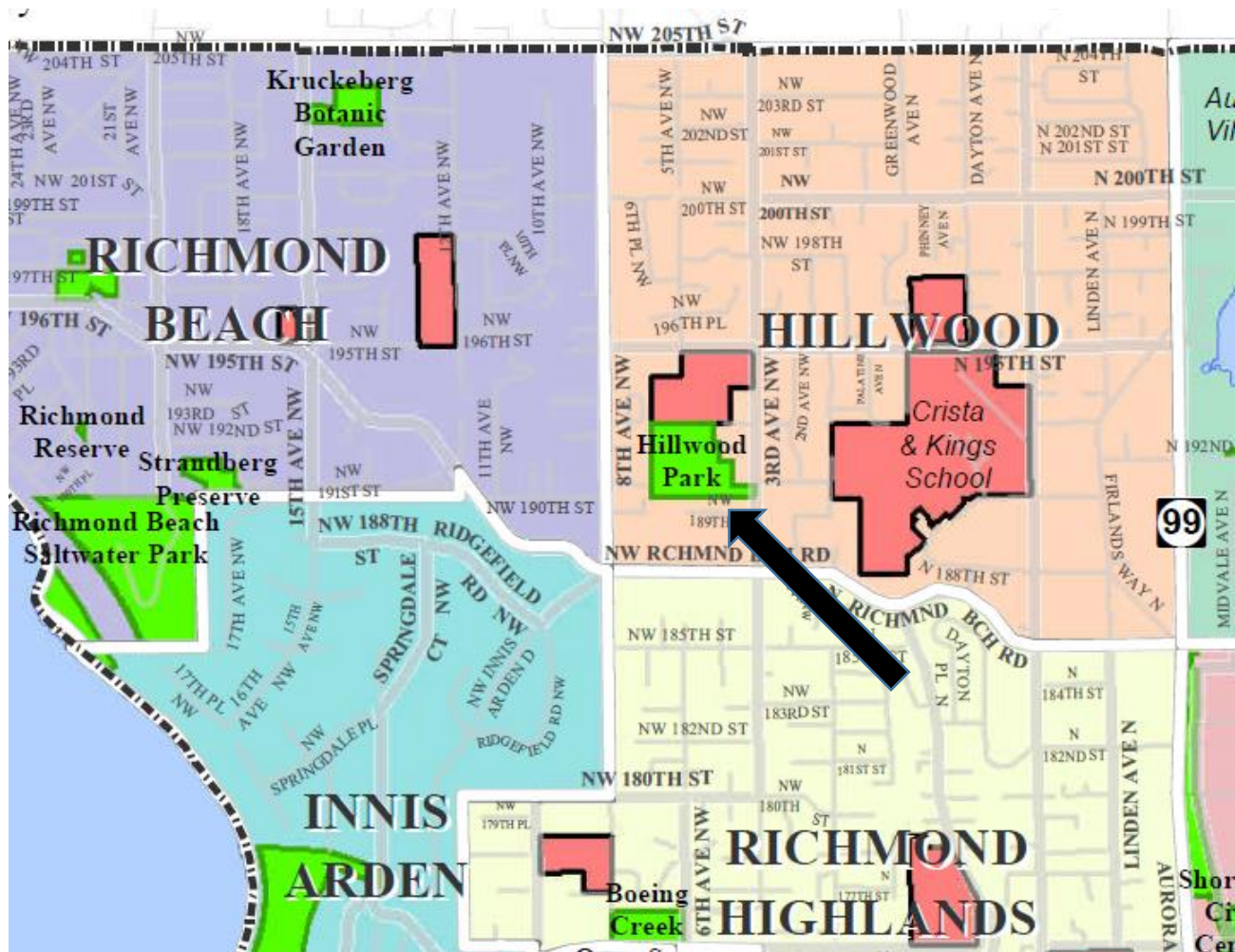


FIG 3 COUNTY PARCEL MAP



Within the eastern edge of the park a small, channelized watercourse runs from north to south for approximately 550 feet. This watercourse is identified as Boeing Creek Reach 12 in the 2004 City of Shoreline Boeing Creek Basin Characterization Report²; and in the 2013, City of Shoreline Boeing Creek Basin Plan as “Boeing Creek in Hillwood Park”³. For convenience this plan refers to it simply as “Hillwood Creek”; the name used by park visitors and neighbors. Hillwood Park, Hillwood Creek and its associated wetland buffer are shown in the Figure 4 - “Wetland Map.”

SITE BACKGROUND AND DESCRIPTION

In late 2012 the Hillwood Community Network (HCN) was encouraged by Parks Department staff to demonstrate a more active interest in their local park if we wanted the City to consider make investments to improve it. Based on that, the HCN drafted, discussed, and voted on a plan at a neighborhood meeting in October of 2012. The plan identified planting of the stream buffer as one of the future Hillwood Park improvements they would like to undertake. It was agreed there was a need to plant the stream buffer to greatly enhance park visitor value; the habitat for local wildlife; and the quality, quantity and rate of water emptying from Hillwood Creek into Boeing Creek.

Since then, the City of Shoreline has completed the Boeing Creek Basin Study. In the spring of 2013 it Hillwood Creek³. It identifies a Habitat Improvement Project (BC-Hab-3) for Hillwood Creek wetland area. This proposal provides for the buffer planting portion of the larger BC-Hab-3.

PROPOSED ALTERNATIVE

The area along Hillwood Creek consists of maintained field grass and is heavily populated with a King County “weed of concern” (see Attachment I) commonly known as creeping buttercup, which is currently being maintained by mowing. This plan is designed to install a rich tapestry of native, wetland and/or meadow, perennial plantings that will successfully compete with and shade-out the buttercup. See Attachment I

The primary goal is to install and enhance wetland functions including/with additional filtration through emergent vegetation; increase water storage during storm events with slowed release; and water absorption.

The 2004 Boeing Creek Basin Characterization 13 Boeing Report¹ contains detailed information including:




- Geology and soils
- Habitat characteristics

The 2013 Boeing Creek Basin Report³ contains additional and updated materials on:

- Built landscape
- Topology
- Geology and geomorphology
- Surface water
- Biological conditions
- Water quality and more....

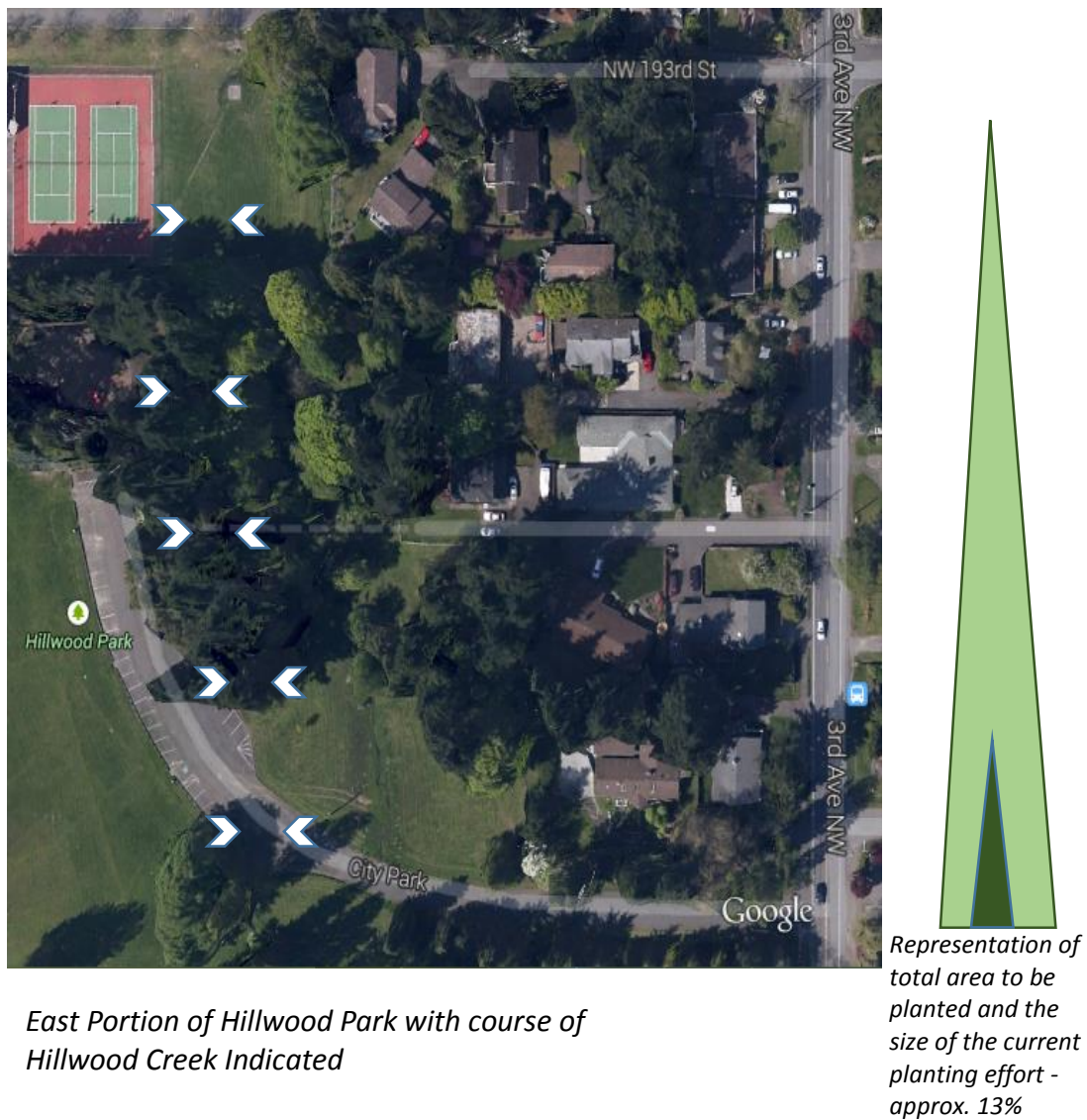
GOALS

This plan is designed to accomplish the wetland and buffer enhancement portion of the BC-Hab-3, by creating a single, cohesive plan for the entire 550ft length of Hillwood Creek and covering approximately 39,250 sf of stream buffer. It will be implemented through a series of multiple plantings, as funding becomes available and using local volunteers to do the work. It will improve downstream water quality, increase wildlife habitat, and create a functioning “sink” to accommodate runoff from higher water flows. Planting will also:

-  Replace the majority of the field grass and creeping buttercup (*Ranunculus repens*)³ with a diverse palette of native, wetland meadow plants
-  Educate/inform about planting techniques, native plantings, quality habitats
-  Create seasonal interest for park visitors to enjoy

- Establish a high quality habitat for wildlife, evergreen, deciduous and flowering species to provide seeds, nectar and pollen for birds, pollinators and small mammals
- Strengthen the sense of community among neighbors and volunteers
- Build neighborhood equity in the park
- Provide an opportunity to learn about the valuable wetland functions the area provides
- Save city taxpayers 100% of design, installation, and initial maintenance costs

FIG 4 HILLWOOD PARK PLANTING SITE CONCEPT MAP



WETLAND DELINEATION

A mid-summer qualitative assessment was done by Consulting Wetland Restoration Consultant, Roseann Beaudry - (Attachment I). It was based on existing vegetation, presence of saturated soils, and site features; including topographic depressions, sink holes, and buttressed trees. This visual delineation was subsequently found to essentially match the delineation shown in the Boeing Creek Characterization Report¹ and shown in the Wetland Map graphic on page 9 of this plan.

FIG 5 WETLAND MAP



<http://shorelinewa.gov/Home/ShowDocument?id=12539>

APPROACH

Design & Plant Selection

A design for the entire 550 ft long buffer area has been co-created through the collaboration of Consulting Wetland Restoration Consultant, Roseann Beaudry and Landscape Designer, Nancy Moore of Obelisk Design (Attachments I & II). The resulting plan is a well thought-out design of appropriate plants and placements for a successful and pleasing outcome which can be planted in segments over time, while maintaining the integrity of the entire plan as enhancement progresses.

Crime Prevention through Environmental Design (CPTED) principles were considered in the plant selection process to assure the future safety of the site as it matures. All the plants are perennials and

the vast majority are local natives. In a few cases, more appropriate plants have been substituted for purely native plants; i.e. Kelsyi dogwoods in lieu of Redtwig dogwoods which get too tall. All plants have been selected and sited based on their hydrophytic attributes and likelihood of success; and their appropriateness to the overall plan of creating interesting drifts of texture, movement and color. At the time of planting See Appendix A. Plant selection may be refined based on further recommendations of KCD, lack of availability, high mortality and/or other lessons learned.

Plant Procurement

Kruckeberg Botanic Garden (KBG) will source and/or grow. Most plants will be acquired through (KBG) and local nurseries.

Site Preparation

There will be no clearing or grading done in preparation. Based on the recommendation of King Conservation District (KCD) *Ranunculus repens*³ will not be removed except via the soil disturbed for placement of plantings due to the likelihood of increased invasion. See Attachment V - KCD letter. The amount of exposed soil at any one time will be limited to the area for one plant per planting volunteer and will be filled immediately; well within the clearing and grading compliance limitations of SMC 20.50.310 A6.

Large woody debris and arborist's mulch will be delivered to the site by Seattle Tree Preservation. The 2-3 pieces of large woody debris will be placed prior to any planting to avoid the risk of potential damage to plantings. The Parks Department may be requested to help place the large woody debris. Beyond this, no site preparation is required.

Planting

A small group of volunteers will be used to layout the plantings in advance. Planting of the first area will begin in late October 2104. It will be a small triangle-like subset equaling approximately 13 %, or 5,100 sf, of the entire area planned area to be planted.

This first planting will done at the southern-most portion of Hillwood Creek as shown in the Hillwood Creek Planting Concept graphic in Fig 4 of this plan.

1. Plants will be installed in the defined area and temporarily fenced to protect any plugs from being destroyed by geese. See Appendix B – Goose Deterrence
2. There will be a three foot wide buffer above the creek's ordinary high water mark taped-off and either not planted, or planted only by the casting of seed to protect the stream bank from being degraded.
3. All plants will be installed according to standard protocol of removing plants from container; loosening soils and roots; placement in a hole at least two times the size of the existing root mass; and covered with the soil removed to create to planting hole. Any soil remaining from

the pot will be used to side dress and covered with 1-2" of arborist's mulch in a 3' ring or more around each plant.

4. Trees and/or shrubs plantings to be scored on four sides of root wad prior to planting and staked to prevent leaning or drooping.
5. All plantings will be thoroughly watered after installation.
6. Plantings will be arranged with the appropriate numbers, sizes, species, and distribution to achieve good vegetation coverage. Plants will be installed in groupings; with the actual placement of individual plants to mimic natural undisturbed sites.
7. All existing trees will be left in place. The root zones of streamside trees are included in the planting area to protect them from mowers.
8. Goose deterrent fencing will be installed to enclose the entire planting area.
9. Planting of additional areas will be planned after a 3 observation year period, as funds become available, and will adjoin the previously planted area so the restoration will progress northward in an orderly manner until complete as designed.

SITE MANAGEMENT & MAINTENANCE

A three year maintenance plan has been established to insure proper care and survival of installed plants and to control invasive vegetation. (Appendix - C)

All new plantings will require follow-up care. The main components of the three year care program are weeding and watering. An annual site assessment will be conducted to determine any additional care requirements. When appropriate new plants will be installed to replace plants that may die.

Monitoring Protocol

The purpose of monitoring is to determine if performance goals are being met. During the initial site visit, plants will be inspected for survival and condition. Plant survival and soil coverage will be monitored throughout the three year monitoring period. Plant survival of the majority of the site from a single photo-point will be selected. The photo area will be representative of the mitigation area. To measure percent cover, a photo point will be established that can capture most of the planted area. The point will marked and used for subsequent, annual photos to mark progress. Monitoring will be done annually in August for a three year period. Monitoring reports will be prepared and submitted to the City of Shoreline Parks Superintendent; Kirk Peterson.

A visual qualitative assessment inspection of the entire mitigation area shall be conducted to assess any high mortality areas not represented by the majority of the site and provide recommendations for adaptive management of the site.

If one or more of the planted species exhibit a high rate of mortality and are deemed inappropriate for the site, a substitution may be recommended by the consulting biologist.

Weed Control

The site is currently heavily populated by buttercup. KCD has recommended planting in place to minimize encouraging additional invasion. Over time it is anticipated the buttercup will be shaded out and/or overtaken by the native plants installed.

Hand removal of new invasive plant species which may appear will be done on a semi-annual basis

- Invasive monitoring and removal ongoing for 3 years after planting
- Replacement of failed trees and shrubs planned 1 year after planting
- HCN will be responsible for weed control and site management. Please Appendix E for the MOU.

Maintenance of the planting area will be performed by volunteers from the local neighborhood with potential volunteers from one or all of the following: the Hillwood Community Network, Kruckeberg Botanic Garden Foundation, Calvin Presbyterian Church, Einstein Middle School, Home Depot, and local scout/Campfire groups.

It is the goal of this plan to establish approximately 75% native vegetation with no more 25% invasive species, including existing buttercup and field grass, at the end of the third growing season.

References:

- 1 City of Shoreline Parks, 2011-2017 Recreation and Open Spaces Plan; page 6-22
<http://shorelinewa.gov/Home/ShowDocument?id=11004>
- 2 2004 City of Shoreline Boeing Creek Basin Characterization Report; page 4-6
- 3 2013 City of Shoreline Boeing Creek Basin Plan; pages 58, 129 and G-50
<http://shorelinewa.gov/Home/ShowDocument?id=12539>

APPENDIX - A
PLANT LIST FOR 1ST FIRST PLANTING

CODE	Botanical Name	Common Name	Spacing	Quantity	Size
ARUV	<i>Arctostaphylos uva-ursi</i>	kinnikinnick	2	28	4"
ATFI	<i>Athyrium filix-femina</i>	lady fern	3	45	1 gal
CAOB	<i>Carex obnupta</i>	slough sedge	3	33	plug
CARO	<i>Campanula rotundifolia</i>	common harebell	2	26	4"
COKE	<i>Cornus sericea 'kelseyii'</i>	dwarf red-twig dogwood	4	6	1 gal
DECA	<i>Deschampsia caespitosa</i>	tufted hair grass	2	96	plug
ELPA	<i>Eleocharis palustris</i>	spike rush	2	20	plug
ERGL	<i>Erigeron glaucus</i>	seaside daisy	2	100	4"
FRPU	<i>Frangula purshiana</i>	cascara	n/a	1	5 gal
GERI	<i>Geranium richardsonii</i>	Richardson's geranium	2	30	4"
GLEL	<i>Glyceria elata</i>	mannagrass	2	26	plug
HEAU	<i>Helenium autumnale</i>	sneezeweed	2	30	4"
HECH	<i>Heuchera chlorantha</i>	tall alumroot	2	30	4"
HEMA	<i>Heracleum maximum</i>	cow parsnip	3	5	4"
JUAC	<i>Juncus acuminatus</i>	tapertip rush	1	68	plug
JUEN	<i>Juncus ensifolius</i>	swordleaf rush	1	44	plug
LUPO	<i>Lupinus polyphyllus</i>	big leaf lupine	3	30	plug
LYAM	<i>Lysichiton americanus</i>	skunk cabbage	3	18	1 gal
MARE	<i>Mahonia repens</i>	creeping Oregon grape	3	20	1 gal
MIGU	<i>Mimulus guttatus</i>	yellow monkey flower	1	20	.025 oz.
OESA	<i>Oenanthe sarmentosa</i>	Pacific water parsley	1	136	4"
PHCA	<i>Physocarpus capitatus 'San Bruno'</i>	dwarf ninebark	n/a	5	1 gal
POAR	<i>Potentilla arguta</i>	tall cinquefoil	2	4	4"
POGR	<i>Potentilla gracilis</i>	graceful cinquefoil	2	18	4"
SAPU	<i>Salix purpurea 'Nana' STD</i>	blue artic willow	n/a	3	B&B
SICA	<i>Sisyrinchium californica</i>	golden eyed grass	1	80	plug
SIID	<i>Sisyrinch idahoensis</i>	blue-eyed grass	1	96	4"
SPDE	<i>Spirea densiflora (splendens)</i>	subalpine spirea	5	5	1 gal
VIPA	<i>Viola palustris</i>	marsh violet	1	65	plug

APPENDIX - B



SOUND
NATIVE
PLANTS

What to do about geese !?

Canada geese (*Branta canadensis*) can really wreak havoc on the herbaceous component of our wetland plantings. Geese feed on a wide array of herbaceous wetland species including bulrushes (*Scirpus* spp.), cattail (*Typha* spp.), sedges (*Carex* spp.), pondweed (*Potamogeton* spp.) and arrowhead (*Sagittaria* spp.). Even when the entire plant is not eaten, it is frequently pulled out of the ground by the nipping action of the birds' beaks and either desiccates due to exposed roots or floats away from the project site. There is no easy way to completely protect new wetland plantings from waterfowl. However, here are some suggestions that may help.

Site features that deter geese

Canada geese are large-bodied birds that require considerable space to take off and land and because of this, prefer open sites. Geese will also avoid sites that provide cover for larger predators – cover that acts as a deterrent includes trees, large boulders and shrub thickets or tall banks of emergent vegetation. Geese also prefer unobstructed access routes to open water – if geese have to fly over vegetation to access water, they will usually leave a site. However, cover is frequently hard to come by on newly-planted restoration sites.

Mechanical means of keeping plants in place despite herbivory

If a new planting can make it through the establishment phase, most species are adapted to withstand some herbivory by waterfowl. In order to get a planting through this crucial period, try securing individual plants with metal landscaping staples (6" size is sufficient). Biodegradable landscape stakes, manufactured out of corn byproducts or resins, are also available. Stakes or staples should stay in place for at least 2 growing seasons. It may be difficult to find a biodegradable product with sufficient longevity – many break down in a year or less. For smaller plantings, plants can also be weighted down with rocks or pieces of wood.

Deterrents applied to the entire planting site

Goose exclusion fencing can be run throughout the planted area, to prevent geese from landing or taking off. Be sure to put fencing along the shoreline, to stop birds from walking onto the planting site from the water. Fencing should be about 2-3' tall, laid out in a systematic grid with lines less than 5' apart. Wires close to the ground must be set less than 4" apart to prevent goslings from getting through. Wire or monofilament (material that does not sag when wet) should be tied together where lines cross to prevent the lines from chafing and fraying over time.

Another method entails laying out chicken wire fencing around the perimeter and randomly running fencing in a wavy pattern through the planted site. For aquatic and wetland plantings, install 2"x2" wooden stakes in a 3-4' grid pattern with plastic deer fencing or orange construction fencing stretched between and stapled to the tops of the stakes (clearing the top of the planting). Space the stakes close enough that the fencing does not sag and touch the top of the plants. Bird-scare balloons and mylar scare tape can also be strung along the fencing as an added deterrent. Geese can be reliably excluded by completely surrounding an area, including over top, with netting suspended on cables and posts. Project budgets usually do not allow for such elaborate means of control, however.

See the website listed below for more information on this method. Any fencing needs to be checked regularly to ensure the fence is in good shape and wildlife is not trapped within.

More resources

Russell Link's "Living with Wildlife in the Pacific Northwest" book was used when preparing this information sheet. A series of web pages based on this book is available through the WA Department of Fish and Wildlife's website: wdfw.wa.gov/wlm/living/canada_geese.htm.

Thank you to Dyanne Sheldon with Otak, Inc. for technical input on this information sheet.




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Phone (360) 352-4122 - Fax (360) 867-0007 - www.soundnativeplants.com

APPENDIX -C MAINTENANCE SCHEDULE

Action	Month											
	J	F	M	A	M	J	J	A	S	O	N	D
When installed												
Mulching												
Watering												
Year 1	J	F	M	A	M	J	J	A	S	O	N	D
Weeding												
Watering												
Remove fencing												
Monitoring												
Year 2	J	F	M	A	M	J	J	A	S	O	N	D
Weeding												
Watering												
Monitoring												
Year 3	J	F	M	A	M	J	J	A	S	O	N	D
Weeding												
Monitoring												

 Indicates range of time to perform action as needed.

Notes: 1) All new plantings to be watered in at the time of planting. Because this is a wetland, two years of monthly dry season monitoring will done; as required.

2) Weeding for noxious weeds and potentially invasive species; exclusive of the well-established *Ranunculus repens*

APPENDIX - D
PERFORMANCE STANDARDS

NUMBER	PERFORMANCE STANDARD
1	After installation of the first planting the restored area will measure at least 5,000 sf
2	95% of planted specimens will be surviving at the end of three years
3	By the end of Year 3 greater than 65% of the cover at the site will be offered by species that are non-invasive, appropriate plantings for the site.
4	By the end of Year 3 existing <i>Ranunculus repens</i> and field grass will not cover more than 25% of the planted area

Appendix – E
Memorandum of Understanding
between
Hillwood Neighborhood Association and the City of Shoreline

This Memorandum of Understanding is a statement of principles and describes how Hillwood Community Network (HCN) and the City of Shoreline intend to perform with respect to planting and maintenance of Boeing Creek in Hillwood Park stream buffer; on property owned by the City of Shoreline within Hillwood Park.

1. The purpose of this Memorandum is to define the responsibilities between the HCN and the City for the planting and maintenance of stream buffer for Reach 12 of Boeing Creek within (Hillwood Creek) where it passes through Hillwood Park.
2. Figure 1 shows a map of Hillwood Creek and the portion of the stream buffer in which the parties have mutually agreed will be planted in the fall of 2014.
3. Hillwood Community Network will be responsible for the establishment and initial maintenance of the plantings. Hillwood Community Network is an established Neighborhood of the City of Shoreline. The purpose of the plantings is to improve the habitat quality of the steam buffer, to become a functional storm water sink which also provides wildlife supporting habitat.
4. HCN agrees to coordinate, lead and manage the planting and maintenance of the defined area the Hillwood Creek buffer with funding provided by grants and in-kind matching donations, to purchase native plants, mulch, and volunteer work party equipment necessary. For all improvements, the HCN will be primarily responsible for project development and the City will be in a supporting role as described in this Memorandum.
5. Changes to the Memorandum can be made by mutual agreement between the parties. Primary contact people shall be identified from each party to implement the Memorandum and to facilitate effective communication and decision-making.

City Contact: PRCS Director, Dick Deal 206.801.2601

HCN Contact: HCN Secretary, Boni Biery 206.542.4722

Should conflicts arise, the contact people shall meet in person to resolve them.

6. The stream buffer is an Environmentally Sensitive Areas (ESA), and all parties acknowledge that ESA requirements and that the City's current Critical Area Ordinance apply and must be followed. All parties also agree that their actions must meet all local, state, and federal regulations and that each party is solely responsible for compliance of their actions and their installations with all local, state, and federal regulations.
7. HCN responsibilities include:
 - a. Project management including such items as site plan development, project administration, and organizing volunteer work parties.
 - b. Providing the necessary community volunteers, equipment and tools to carry out the planting and initial maintenance of the Hillwood Creek buffer area defined.
 - c. Organize and train volunteer work parties
 - d. Monitor and water plantings as needed for them become successfully established.
 - e. Monitor, report and remedy any damage caused by HCN sponsored volunteer activity in the described site.
 - f. Keep the planting area free of litter.
 - g. Alert the City to any hazardous materials found.
8. City responsibilities will include, but may not be limited to:
 - a. Provide disposal of trash and vegetative waste collected on the site as requested.
 - b. Provide access and hose to on site water for watering of plants as required to get them successfully established.
 - c. The City hereby grants a revocable license to HCN, its officers and volunteers to enter onto the described city property for the purpose of conducting the activities outlined in this MOU. Access shall be limited to the daylight hours between dawn and dusk.
9. Joint responsibilities of the parties will include:
 - a. Periodic site review to conduct an assessment during the garden establishment phase and at least once annually in subsequent years.
 - b. Concurrence on annual work plan to address identified needs.

10. This Memorandum will start the date of the last party to sign. Any party may terminate this Memorandum with 30 days written notice.
11. HCN warrants that persons working on City property during the course of the project shall do so on a volunteer basis without employment relationship or expectation of compensation.
12. The parties do not intend to confer any rights on third parties by this Memorandum.

City of Shoreline

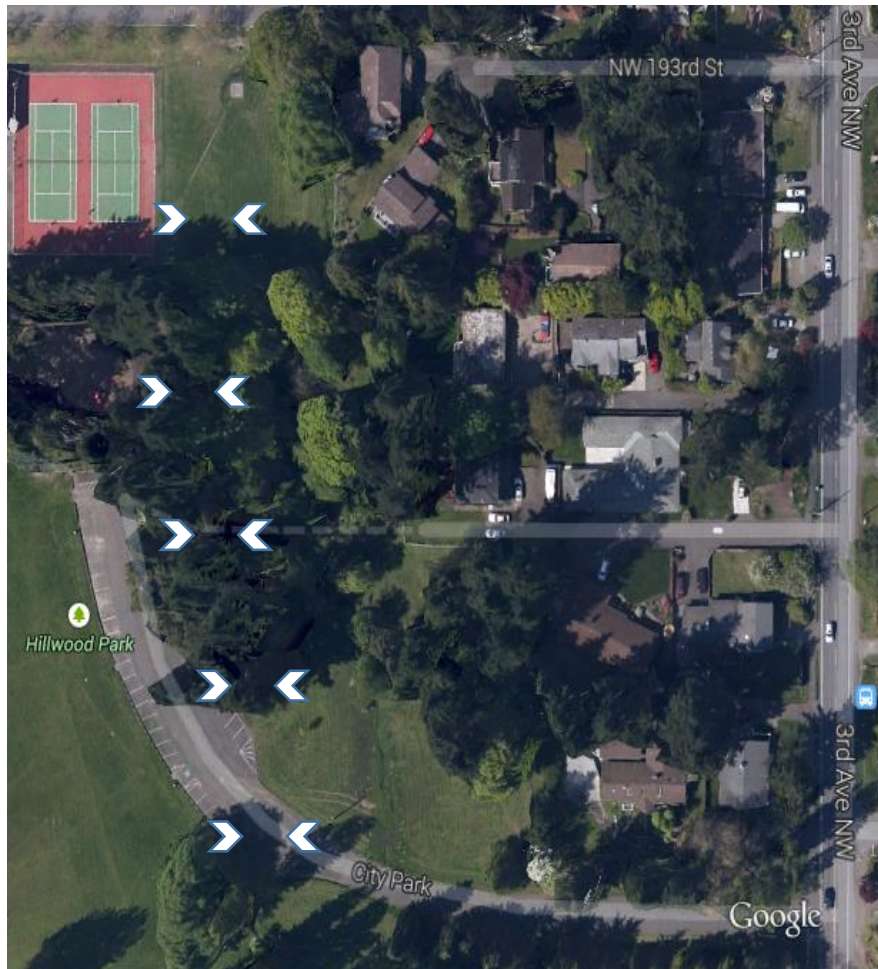
By _____
Brian Landau
Surface Water and
Environmental Services Manager

By _____
Kirk Peterson
Park Maintenance Superintendent

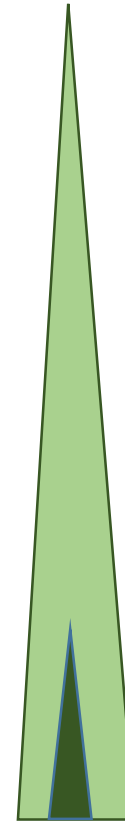
Hillwood Community Network

By _____
Boni Biery
HCN Secretary

HILLWOOD PARK PLANTING SITE
Memorandum of Understanding
Figure 1



*East Portion of Hillwood Park with course of
Hillwood Creek Indicated*



*Representation of
total area to be
planted and the
size of the current
planting effort -
approx. 13%*

Attachment I

Creeping buttercup

Ranunculus repens

King County weeds of concern, 2014 list

[View by common name »](#)

(This list is for educational purposes only; these species are not classified as noxious weeds in Washington State. These species often impact and degrade native plant and animal habitat. Control is recommended where feasible and new plantings are discouraged)

Scientific name	Common name
Convolvulus sepium (external link)	hedge bindweed, morning glory
Crataegus monogyna	common hawthorn
Ilex aquifolium	English holly
Impatiens capensis (external link)	spotted jewelweed
Prunus laurocerasus	English laurel
Ranunculus acris	tall buttercup
Ranunculus repens	creeping buttercup
Rosa multiflora	multiflora rose
Solanum dulcamara	bittersweet nightshade
Sorbus aucuparia (external link)	European mountain-ash

<http://www.kingcounty.gov/environment/animalsAndPlants/noxious-weeds/weed-identification/creeping-buttercup.aspx>



Creeping buttercup is a low-growing, perennial species of buttercup originally from Europe and now found throughout North America and many other parts of the world. This competitive plant spreads by stolons and forms thick carpets on wet, poorly drained soils everywhere from farms to city gardens to natural wetlands.

Legal status in King County, Washington

Creeping buttercup is not on the [Washington State Noxious Weed List](#). However, in King County, this non-native invasive buttercup species is classified as a [Weed of Concern](#). The [King County Noxious Weed Control Board](#) recommends the prevention of spread of this species to uninfested areas and its control in protected wilderness areas, natural lands that are being restored to native vegetation, and in pastures that are being grazed.

Impacts

Creeping buttercup's competitive growth crowds out other plants, especially in wet soils. One plant can spread over a 40 square foot area in a year. Creeping buttercup also depletes potassium in the soil and so can have a detrimental effect on surrounding plants. Because creeping buttercup can tolerate heavy, wet soils, it can be a particularly bad problem on well-watered lawns, wet meadows and poorly drained pastures. In addition to invading wet grassy areas, creeping buttercup is reported as a weed of 11 crops in 40 countries.

Fresh buttercup plants are toxic to grazing animals, who can suffer from salivation, skin irritation, blisters, abdominal distress, inflammation, and diarrhea. Fortunately, buttercup has a strong, bitter taste so animals generally try to avoid it if more palatable forage is available. Also, the toxin *protoanemonin* is not very stable and loses its potency when dry, so buttercup is not generally toxic in hay. Unfortunately, livestock occasionally develop a taste for buttercup and consume fatal quantities. It is safest to keep populations of buttercup under control on grazed pastures and offer plenty of healthy forage.

Growth and reproduction

Creeping buttercup spreads by seed and by long branching stolons that root at the nodes, forming new plants. In more established woodland and grassland communities, this plant increases mostly through stolons unless the soil is disturbed. In dry conditions, flowering and seeding is more prevalent and in wet conditions, stolons are more plentiful. Seeds can germinate and seedlings can grow under water-logged conditions.



One of the reasons creeping buttercup is so competitive is that its stolons respond to the environment. Under favorable conditions, plants form more stolons through branching. However, when nitrogen is limiting, stolons tend to be longer and unbranched allowing longer distance “sampling” of a number of potential sites until more suitable locations are found. When favorable conditions are discovered, stolon branching resumes, allowing rapid local colonization to take advantage of the available resources. In general, short stolons are produced in dense turf and much longer ones appear in open fields or woodlands.

Depending on the temperature, creeping buttercup either overwinters as a rosette or dies back to ground level. In either case, the nutrients stored in the short swollen stem produce rapid growth in spring, between April and June. Stolons grow from the leaf axils in spring and summer and growth peaks in late summer. Stolons connecting parent and daughter plants usually die off in fall.

Flowers can appear from March to August with seeds soon after. Each plant produces from about 20 to 150 seeds. Seeds can remain viable in the soil for at least 20 years, and up to 80 years, especially under acid or water-logged conditions. Seeds are dispersed by wind, water, birds, farm animals, rodents, and other animals by adhering to them with the hooked seeds.

Creeping buttercup grows particularly well in moist or poorly drained situations, although it will also colonize sandy and gravel-based soils with sufficient moisture. Creeping buttercup also has some tolerance to salinity and is found along beaches, salt marshes and the margins of tidal estuaries. In woodlands, this buttercup is mainly restricted to clearings, forest margins and paths. It is frost tolerant and will survive moderate droughts. Creeping buttercup is tolerant of trampling, compacted soils, and grazing.

Control

Be sure to have a long-term plan to ensure success, protect native and beneficial species while doing the control, and start in the least infested areas first and then move into the more heavily infested areas.

Prevention and cultural control

- In lawns and pastures, promote healthy grass by overseeding, fertilizing as needed, and not over-grazing. Adding lime can improve grass health and keep buttercup from re-establishing. However, lime won't control buttercup that is already well-established.
- It also helps to improve soil drainage. Reduce compaction by aerating and avoid trampling when soils are wet.
- Clean mowers and other equipment to avoid spreading buttercup seeds to un-infested areas.

Manual

- Dig out with a sharp trowel or fork-type tool, removing all of the runners, roots and growing points. Digging is most effective from fall to spring while the soil is moist and roots won't break off as much.
- Cultivating or incomplete digging may increase the buttercup population because it can sprout from nodes along stem and root fragments.
- Disturbance of the soil can increase seed germination. Seeds stay viable for 20 years or more and the number of seeds in infested soils can be immense compared to the number of plants present, especially in long-term pastures and woodland ecosystems.

Mechanical

- Creeping buttercup's growing point is at soil level, so plants resist mowing and quickly re-sprout when cut.
- Regular cultivation can kill the buttercup but plants buried by cultivation can grow back up through deep soil and re-establish themselves and long-lived seeds in the soil can germinate and re-infest the area once cultivation ceases.

Attachment I

Roseann Beaudry

9242 Phinney Avenue N.
Seattle, WA 98103
(206) 250-9285
roseannbarnhill@gmail.com

EMPLOYMENT
NURSERY MANAGER
HORTICULTURIST
ECOLOGICAL RESTORATION

Kruckeberg Botanic Garden
Msk Rare and Native Plant Nursery
Shoreline, WA
2004 - Present

Go Natives Nursery
Shoreline, WA
2010-Present

PLANT ECOLOGIST
WETLAND SCIENTIST
ECOLOGICAL RESTORATION

Consultant, Self- Employed
2009 - Present

PLANT ECOLOGIST

City of Shoreline Parks and Recreation
Hamlin Park, Southwoods Park
2007-2010

EDUCATION

University of Washington
Bachelors of Fine Arts (Photography)
1997

University of Washington
Certificate- Wetland Science and Management
2010

University of Washington
Certificate- Stream Restoration
2011

Washington Department of Transportation
Graduate Internship - Wetland Ecology and Monitoring Techniques
In partnership with the Evergreen State College
2010

Rate: \$50.00 / Hr.
References available upon request

Attachment II

obelisk

GARDEN DESIGN
NATIVE PLANTS

206-546-2598
nancy@gardenmoore.com
www.gardenmoore.com

NANCY MOORE

2533 NW 192nd Pl. Shoreline, WA 98177

EDUCATION

Holy Names University

BA in Biology

1970

Edmonds Community College

ATA in Horticulture, Landscape Design

2004

Honors recipient

Washington Native Plant Society

Certificate in Native Plant Stewardship

2008

Stewardship project: Vegetative monitoring North Creek Watershed

RELATED EXPERIENCE

Owner,

2004 – 2014

Obelisk Garden Design, Obelisk Native Plants

Principal Designer,

2009

Edmonds Backyard Habitat Native Plant Demonstration Garden

OUTREACH, SLIDE PRESENTATIONS

Wildlife Habitat – Steps to creating your own certified garden

2009

Edmonds Backyard Habitat Project Steward Training

Designing With Native Plants

2010

Edmonds Backyard Habitat Demonstration Garden Program

Seasonal Favorites of the Demonstration Garden

2011

Edmonds Backyard Habitat Demonstration Garden Program

Second Nature – Adding Pacific Northwest Natives to Your Existing Landscape

2012

Edmonds Garden Club

Gotcha Covered – Using Native Groundcovers in Your Garden

2012

Edmonds Backyard Habitat Demonstration Garden Program

Designing With Native Shrubs and Trees

2013

Edmonds Backyard Habitat Demonstration Garden Program

MEMBERSHIPS

Washington Native Plant Society

Kruckeberg Botanic Garden

Attachment III



King Conservation District

1107 SW Grady Way Suite 130 • Renton, WA 98057 • Phone (425) 282-1900 • Fax (425) 282-1898 • www.kingcd.org

May 15, 2014

City of Shoreline
17500 Midvale Avenue N
Shoreline, WA 98133

To Whom It May Concern:

Please accept this letter of support for the Hillwood Creek Wetland Installation Plan. As a Resource Specialist with the King Conservation District (KCD) I feel that the proposed project will improve the stated goals within the plan. The native species planted as part of the project will help to filter and improve water quality within the stream system. Additionally the project will provide diverse habitat for birds, mammals, pollinators and other beneficial insects. Also, as stated in the plan, the planted riparian buffer will improve the esthetics of the park and provide the public with information regarding storm water, native plants and wildlife. Additionally the project will foster a sense of stewardship through the community involvement implementing the plan.

The King Conservation District promotes the sustainable uses of natural resources through responsible stewardship. The proposed project helps further that mission and will benefit the City of Shoreline and its citizens. Please feel free to contact me with any questions regarding the support of this project.

Sincerely,

Adam Jackson
Resources Specialist II



Memorandum

DATE: June 19, 2014

TO: Park Board members

FROM: Ros Bird

RE: Acceptance of donated sculpture into City Public Art Collection

CC: Dick Deal, Lynn Gabrieli

Two Shoreline residents have offered to purchase a sculpture from the 2013-14 *Sculpture Stroll* exhibit for donation back to the City. The sculpture is the *Redwood Lantern* by artist Bruce Johnson that currently sits in the courtyard at City Hall. Per Public Art Policy, the offer has been reviewed by the Park Board Art Committee for artistic quality, suitability for the collection, ease of maintenance and durability. There are no special donor conditions tied to this gift. The Committee is recommending the acceptance of this generous offer. If approved by the Park Board the sculpture will remain in its current location.

Recommendation:

The Park Board Art Committee recommends approval by the Park Board to accept the donation of the *Redwood Lantern* sculpture for the City's Public Art Collection.



Memorandum

DATE: June 19, 2014

TO: Park Board members

FROM: Ros Bird

RE: Acceptance of concept design for the Sunset School Park entryway artwork

CC: Dick Deal, Lynn Gabrieli

The artists selected for the Sunset School Park entryway artwork, Bruce and Shannon Andersen of Andersen Studios, have a long history of public art in communities. They have presented concepts to the Selection Panel including members of the Park Board Art Committee.

The design to be presented at this Park Board meeting is the result of several iterations of initial design resulting in a concept that the panelists deem appropriate for the site, of interest to the neighborhood and of lasting enjoyment.

The Selection Panel is meeting with the artists on Monday afternoon for an additional review of concept designs. Following panel approval, an image and information will be sent to you prior to the Park Board meeting.

Recommendation:

The Park Board Art Committee recommends approval by the Park Board to accept the concept design by Andersen Studios presented at this Park Board meeting, allowing the artists to move forward with final design, fabrication and installation.



Mountains to Sound Greenway Trust
King County
City of Shoreline
South Woods Community Restoration
Final Project Narrative: December 31, 2013

Project Period: May 1, 2012 to December 31, 2013



Project Summary and Accomplishments

Between May 1, 2012 and December 31, 2013, the Mountains to Sound Greenway Trust successfully engaged community members in restoration of a 2-acre site at South Woods in Shoreline. The project engaged over 100 community volunteers, who contributed nearly 500 hours of service toward removing invasive weeds, and planting over 800 trees and shrubs.

The goal of this project was to address a high priority area identified by the South Woods Vegetation Management Plan, characterized by moderate amounts of invasive species, a healthy native canopy, and low to moderate amounts of native understory.



Volunteers assisting with native plant installation at South Woods.

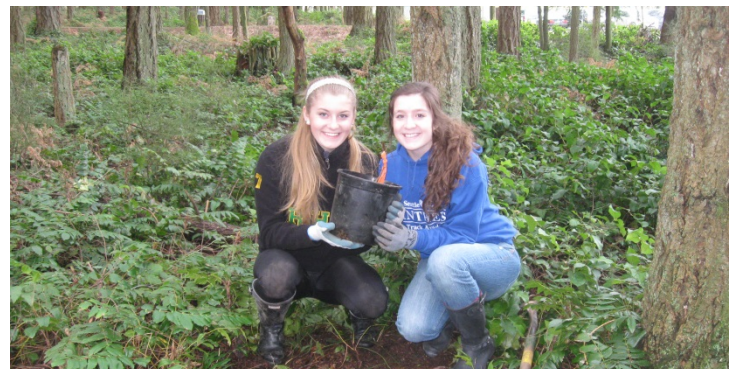
The Greenway Trust, using funding provided by a King County *Wild Places in City Spaces* grant and matching funds from Carter Motors, partnered with the City of Shoreline and the South Woods Preservation Group to remove invasive holly, blackberry, and ivy from the site, plant native understory trees and shrubs. Invasive species threaten the existing ecosystem and wildlife habitat, and were poised to overtake the natural areas of South Woods; successful mitigation at this stage will prevent the project site from becoming overwhelmed with invasive species.

Greenway Trust staff, Washington Conservation Corps (AmeriCorps) crews, and volunteers combined their efforts to control invasive weeds (including English holly, English ivy, and Himalayan blackberry) on the site.

VOLUNTEER PARTICIPATION

Over the course of this project, the Greenway Trust coordinated five successful volunteer events at South Woods. Volunteers assisted with the removal of invasive ivy and blackberry to prepare for future planting of native trees and shrubs. Volunteers also returned to South Woods to help plant native understory trees and shrubs.

- Over the course of the project, 117 volunteers contributed 494 hours toward invasive weed removal and native plant installation.
- Approximately 70% of volunteers were youth; including two groups from Parkwood Elementary participating in the Greenway Trust Education Program's Stewardship Extension events, following on in-class and field study lessons.



Volunteers assisting with native plant installation at South Woods.

INVASIVE SPECIES REMOVAL AND CONTROL

This project successfully reduced the spread of ivy, holly, blackberry and other invasive species in South Woods; a critical task in allowing natural successional processes to re-establish on the site.

Greenway Trust staff and WCC crews and Individual Placements controlled invasive holly, ivy, and blackberry on the project site in South Woods. Greenway Trust Restoration Technicians used chemical and manual control efforts to target the invasive holly and laurel on site. WCC crews followed up on initial treatment to continue removal efforts. Community volunteers participated in several events dedicated to removal of invasive weeds on the project site.



WCC crews clearing invasive weeds at South Woods.

NATIVE PLANT INSTALLATION

The Greenway Trust successfully installed over 800 native understory trees and shrubs at South Woods. Volunteers assisted with the planting of 689 plants. WCC crews and Individual Placements completed the remaining planting efforts. Plants installed on the site included a mixture of species, including Black hawthorn, Cascara, Vine maple, Indian plum, Salmonberry, Snowberry, and Thimbleberry. This mixture of native vegetation increases the plant diversity on the site, and encourages a natural forest succession process.

Project Completion

The City of Shoreline was named a Tree City USA in 2013, and the Greenway Trust will continue to work with and engage the City and the neighboring community in efforts to enhance this urban forest. The Greenway Trust will seek additional funding for project continuation and expansion. With continued community support and restoration efforts, South Woods has the ability to become a healthy native urban forest.

In addition to community restoration projects, the Greenway Trust will continue to engage the next generation of landscape stewards in Shoreline through the Greenway Education Program, a

science-based program that uses field study and service learning to connect young people in 4th-10th grade to the nature in their backyard and empowers them to make a difference in the world. The Greenway Education Program focuses on concepts such as forest ecosystems, water quality, soil, biosolids and land use issues. The program is rigorous, but leaves room for students to let their curiosity and sense of wonder emerge as they walk and work in a beautiful landscape. The Greenway Education Program engages a number of schools in Shoreline, including Echo Lake Elementary, Parkwood Elementary, and The Evergreen School.



Volunteers at a Greenway Trust tree planting project at South Woods in November, 2011.

For More Information or for Additional Photos

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